

Surface Planar Transform User Manual

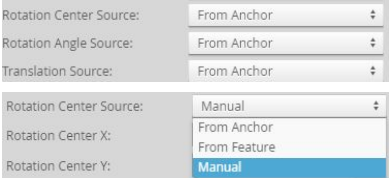


1. General introduction

Surface Planar Transform tool (previous name Surface Rotation) is used to transform an input surface in 2D space, namely X,Y and Z angle and then output the transformed surface as data output. The major use case of the tool is to receive the location information from other tools and then transform the measuring object to a fixed location, ready for inspection.

It is different from Surface Transform tool in two ways: firstly, numerous input source can be specified, such as anchor, feature and manual input. Secondly, for rotation only, this tool adds capability to specify a rotation center, therefore an object can be rotated with respect to a user-defined point.

This tool can be well combined to Surface Contour Matching tool, whose measurement outputs can be used as this tool's anchoring source for object locating.

2. Parameters and outputs

Rotation Center Source	Input source for rotation center: source can be from anchor, from input feature or manual input. If user chooses: <i>Anchor</i> : User needs to add anchor source, otherwise set to default origin. <i>Feature</i> : User needs to specify an input feature, otherwise set to default origin. <i>Manual</i> : User to input the value manually.	
Rotation Angle Source	Input source for rotation angle: source can be from anchor or manual input.	
Translation Source	Input source for translation: source can be from anchor, from input feature or manual input.	
Interpolation Method	Interpolation methods used when surface is rotated: available options are nearest neighbor and bilinear	
Transformed Surface	Data output	

4. Application Example

The following figure shows a transformed surface in X,Y and Z angle.

